

CLAIMS

1. A photosensitive resin composition comprising

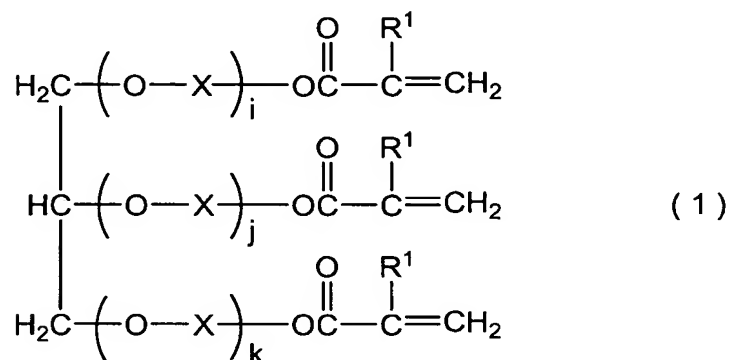
(A) a binder polymer,

(B) a photopolymerizing compound with at least one polymerizable ethylenic unsaturated group in the molecule and

(C) a photopolymerization initiator,

wherein component (B) contains a compound represented by the following general formula (1).

[Chemical Formula 5]

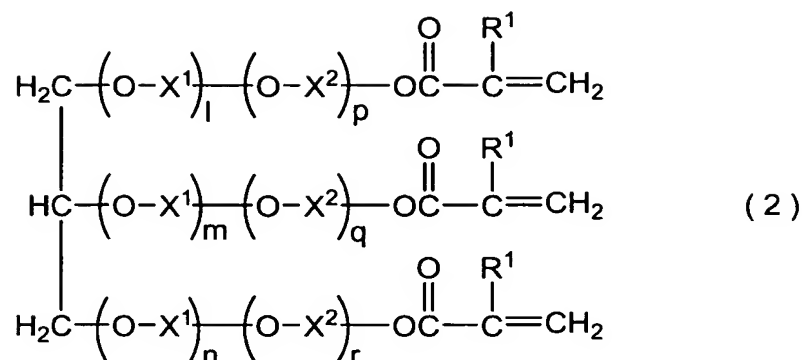


(wherein the three R¹ groups each independently represent hydrogen or methyl, the three X groups each independently represent C2-6 alkylene and i, j and k each independently represent an integer of 1-14.)

2. A photosensitive resin composition according to claim 1, wherein the alkylene group of component (B) is ethylene or propylene.

3. A photosensitive resin composition according to claim 1 or 2, wherein the compound represented by general formula (1) above is a compound represented by the following general formula (2).

[Chemical Formula 6]



(wherein the three R^1 groups each independently represent hydrogen or methyl, the three X^1 and three X^2 groups each independently represent C2-6 alkylene and l , m , n , p , q and r each independently represent an integer of 1-7.)

4. A photosensitive resin composition according to claim 3, wherein X^1 and X^2 on the same chain in component (B) are different alkylene groups.

5. A photosensitive resin composition according to claim 3 or 4, wherein either of X^1 and X^2 in component (B) is an ethylene group and the other is a propylene group.

6. A photosensitive resin composition according to any one of claims 3 to 5, wherein l , m , n , p , q and r in component (B) each independently represent an integer of 1-3.

7. A photosensitive resin composition according to any one of claims 1 to 6, wherein the weight-average molecular weight of component (A) is 10,000-95,000.

8. A photosensitive resin composition according to any one of claims 1 to 7, which has a component (A) content of 40-80 parts by weight, a component (B) content of 20-60 parts by weight and a component (C) content of 0.1-20 parts by weight with respect to 100 parts by weight as

the total of component (A) and component (B).

9. A photosensitive resin composition according to any one of claims 1 to 8, wherein the content of the compound represented by general formula (1) above is 5-60 wt% with respect to the total of component (B).

10. A photosensitive element provided with a support and a photosensitive layer comprising a photosensitive resin composition according to any one of claims 1 to 9 formed on said support.

11. A photosensitive element according to claim 10, wherein the thickness of said support is 5-25 μm .

12. A photosensitive element according to claim 10 or 11, wherein the haze of said support is 0.001-5.0.

13. A photosensitive element according to any one of claims 10 to 12, wherein said photosensitive layer has an ultraviolet light transmittance of 5-75% at a wavelength of 365 nm.

14. A photosensitive element according to any one of claims 10 to 13, which is further provided with a protective film on said photosensitive layer.

15. A photosensitive element according to claim 14, wherein the thickness of said protective film is 5-30 μm .

16. A photosensitive element according to claim 14 or 15, wherein the tensile strength of said protective film in the lengthwise direction of the film is at least 13 MPa.

17. A photosensitive element according to any one of claims 14 to 16, wherein the tensile strength of said protective film in the widthwise direction of the film is at least 9 MPa.

18. A resist pattern forming method wherein a photosensitive layer for a photosensitive element according to any one of claims 10 to 13 is laminated on a circuit-forming board and active light rays are irradiated onto prescribed sections of said photosensitive layer for photocuring of the exposed sections, after which the non-exposed sections of said photosensitive layer are removed.

19. A resist pattern forming method wherein the protective film of a photosensitive element according to any one of claims 14 to 17 is released at the time the photosensitive layer of said photosensitive element is laminated on a circuit-forming board, and active light rays are irradiated onto prescribed sections of said photosensitive layer for photocuring of the exposed sections, after which the non-exposed sections of said photosensitive layer are removed.

20. A printed circuit board production process wherein a circuit-forming board having a resist pattern formed thereon by a resist pattern forming method according to claim 18 or 19 is etched or plated.